8.26.2008

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Projecting Annual Economic Growth in the Nation

Gross Domestic Product (GDP) is the Broadest Indicator of Economic Activity in the Nation

Is it appropriate to use a historical period for projecting economic growth (GDP) or is a forecast more appropriate?

Prepared for

Governor's Commission on Climate Change
Electricity Generation/Other Stationary Source Workgroup

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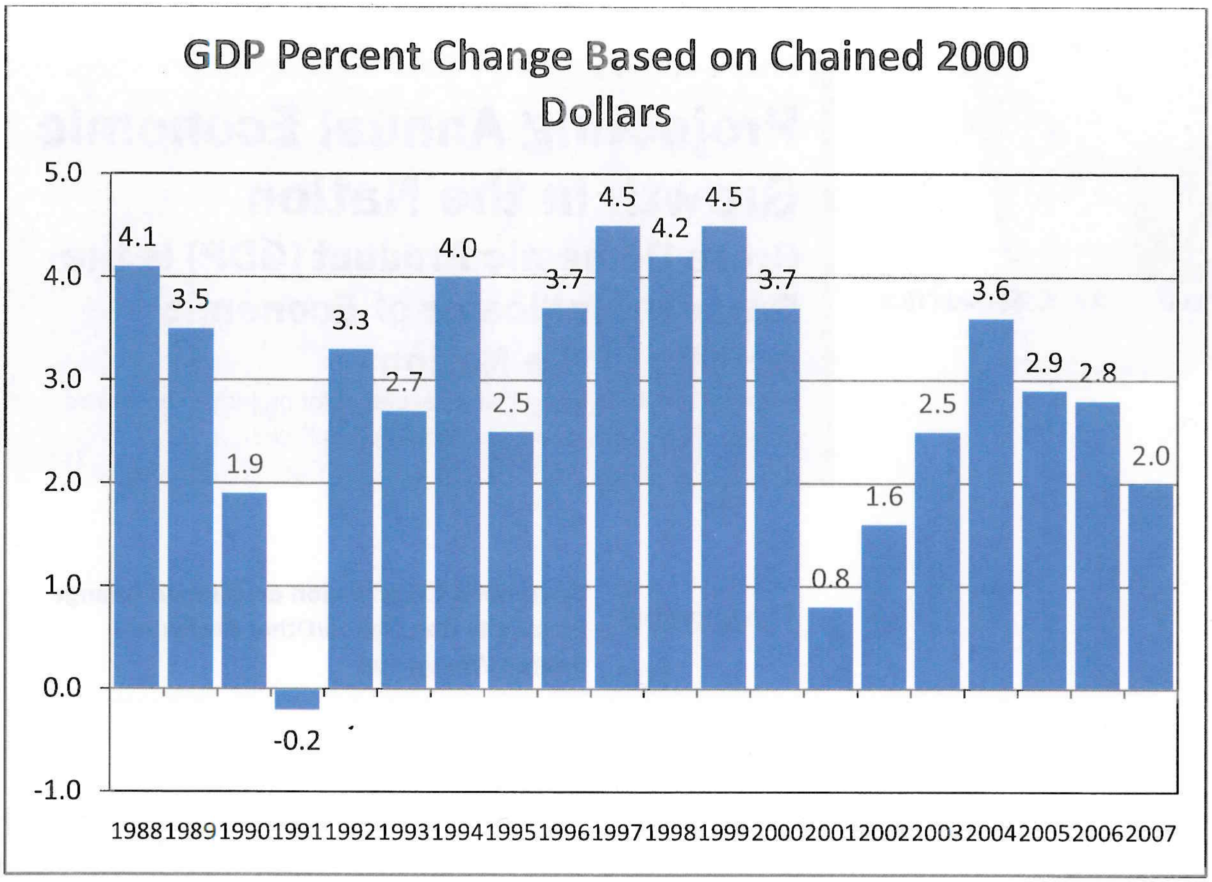
Historical Real GDP Growth

Over the last 20 years, real GDP grew an average 2.9% per year. The economy grew a slightly faster 3.0% during the first 10 years of that period compared with 2.9% in the last ten years. This remarkable long-run stability might lead one to conclude that a 20 year historical average would be the best approximation of the next 20 years of growth in the United States.



What Drives Future Growth?

The economy has a "speed limit." Consistently exceeding that speed limit can lead to accelerating inflation. That's why the Federal Reserve tends to increase the federal funds rate when the economy is consistently growing faster than the speed limit (to slow it down) and lowers rates when the economy is growing too slow.

Historical trends show that accelerating inflation is bad for the economy because it slows economic growth in several ways, including increasing uncertainty and distorting economic decisions. When inflation is accelerating businesses have a harder time determining whether increases in sales are due to greater demand for their products or price fluctuations. The uncertainty of how much inflation will rise also causes investors to seek larger risk premiums on investments which increases the cost of borrowing and makes capital investments and durable goods purchases more expensive. And, since our tax system is not fully indexed to inflation, rapid inflation can cause investors to shift investments toward those that obtain a higher after-tax return that is not consistent with the underlying value of the product.

Aside from promoting stable prices, the Federal Reserve has a second goal of encouraging maximum sustainable output and employment growth in the nation—also known as the "speed limit" or potential GDP.

The speed limit varies over time and is dependent on factors such as productivity and labor force growth. A simple way to estimate the speed limit is to add the annual productivity growth rate, which was about 3.2% from 2000 through 2006, to the labor force growth rate of 1% during that period. As a result, many economists believed that the speed limit of real GDP was about 3.0% to 3.5%.

From this perspective potential real GDP can be considered an upper bound for real GDP in the future. As shown in the table below, the growth of potential output, which is essentially the same as that of potential real GDP, is expected to slow over the next ten years, mainly because of a significant slowdown in the labor force growth rate.

Based on the current slow growth in the economy, as well as the slowdown in labor force growth, using the last 10 or 20 years of historical growth as a guide for future growth would likely overestimate growth.

It is needs to be noted that potential GDP growth is a good indicator of long-term growth prospects for the future. Short-term GDP growth is also affected by other factors such as consumer demand and policy instruments.

Table 2-2.

Key Assumptions in CBO's Projection of Potential Output

(By calendar year, in percent)

	Average Annual Growth						Projected Average Annual Growth		
	1950–1973	1974–1981	1982–1990	1991–2001	2002–2007	Total, 1950–2007	2008–2013	2014–2018	Total, 2008–2018
					Overall Economy				
Potential Output	3.9	3.2	3.1	3.1	2.8	3.4	2.7	2.5	2.6
Potential Labor Force	1.6	2.5	1.6	1.2	1.1	1.6	0.8	0.5	0.7
Potential Labor Force Productivity[a]	2.3	0.7	1.5	1.9	1.6	1.8	1.8	2.0	1.9

Source: "The Budget and Economic Outlook: Fiscal Years 2008 to 2018," Congress of the United States, Congressional Budget Office, page 60.

Conclusion

Expected potential GDP growth rather than historical GDP growth would be a better predictor of the economy over the next ten or twenty years.